



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,067	05/26/2006	Alan Quemeneur	217035.00006	1437
22908 7590 10/18/2011 BANNER & WITCOFF, LTD. TEN SOUTH WACKER DRIVE SUITE 3000 CHICAGO, IL 60606				
EXAMINER CASTELLANO, STEPHEN J				
ART UNIT		PAPER NUMBER		
3781				
MAIL DATE		DELIVERY MODE		
10/18/2011		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/596,067

**Applicant(s)**

QUEMENEUR, ALAN

**Examiner**

STEPHEN CASTELLANO

**Art Unit**

3781

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 September 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5) ☒ Claim(s) 1, 4-7, 15 and 17 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1, 4-7, 15 and 17 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

Applicant's claim terminology is broadly interpreted. "Tube head" generally represents the top neck finish area and shoulder of a bottle as shown in Fig. 3 and 6 and labeled as reference number 40. "Tube head" must be broadly interpreted to include closures as claim 2 includes a pivoting cap as part of the tube head. The term "skirt" generally represents the cylindrical sidewall that extends below the shoulder of a bottle. "Tube" refers to the combined assembly of a tube head and a skirt as stated in claim 15.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carr (2002/0183883) in view of Hermes (FR 2622543) and German reference No. DE 10218417 to Staab.

Carr discloses in Fig. 1 a plastic closure and associated container (see page 3, paragraph [0020]) which defines a flexible tube head formed of plastic material, the tube head including an opening by an edge and a shoulder connecting the edge to a flexible skirt of a flexible tube for packaging a product, the tube head includes an RFID electronic component (integrated circuit 16 and antenna 18) in the cap (plastic closure 12), the component is intended to exchange information about the tube and/or its contents with a read/write device (radio frequency input/output device 20) outside of the tube without any electrical contact, the electronic component being set within the plastic material such that there is no adhesive material in contact with the packaged product (see paragraph [0026], specifically, last three sentences which pertain

to (1) the secured within the closure during molding (2) the heat bonding such as by ultrasonic welding and the use of a suitable heat-bondable substrate and (3) mechanical attachment wherein all three attachment mechanisms do not use adhesive).

Carr discloses that the electronic component is set within the plastic material forming a cap. However, Carr's cap is not a pivoting cap. Hermes teaches a pivoting cap on a bottle. Staab teaches cap 8 which pivots between open and closed positions for closing the opening of a bottle. It would have been obvious to modify the cap of Carr to be a pivoting cap to provide convenience and ease in aligning and securing a cap in a closed position and insuring that the cap seals properly. Also, the cap is not detached in the open position which eliminates the possibility of a cap being misplaced from an open bottle.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carr in view of Hermes and Staab as applied to claim 1 above, and further in view of Panasik (6087198).

The Carr-Hermes-Staab combination discloses the invention except for the thickness of the electronic component being less than 400 microns. Panasik teaches an electronic component (integrated circuit chip) of between 2-4 microns in thickness. It would have been obvious to modify the size and thickness of the electronic component to be less than 400 microns to reduce power requirements, to reduce the possibility that the electronic component is noticed, and to reduce any adverse affect a larger component would have on the moldability of the bottle/cap and the structural integrity of the bottle/cap.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carr in view of Hermes and Staab as applied to claim 1 above, and further in view of Kennedy (3778685).

The Carr-Hermes-Staab combination discloses the invention except for the electronic component doesn't have a support and the periphery of the support enclosed by the plastic material forming the tube head. Carr states that preferably the radio frequency (RF) integrated circuit 16 is disposed on or at the interior surface of the closure (see paragraph [0025], lines 3 and 4). Carr further states two methods of attachment of the circuit 16 and antenna 18 (see paragraph [0026]). First, heat bonding by disposition of the circuit and antenna on a suitable heat bondable substrate. The substrate is a support. However, the heat bonding doesn't state that the periphery of the substrate is enclosed in the plastic material forming a cap. Second, the circuit and antenna can be positioned and secured within the closure during molding thereof. This second method of attachment doesn't mention a support. The second method would not preclude an enclosing of the electronic component in the plastic material forming the cap.

Kennedy teaches an electronic component (integrated circuit) which includes a support (potting compound 13), the support has a periphery, and the support is enclosed in the plastic material of molded cover 14. It would have been obvious that Carr could be made by attaching the circuit and antenna to a substrate or support then enclosing the support in the plastic material forming a cap in order to securely mount the electronic component and protect the electronic component from damage or exposure to liquid.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carr in view of Hermes, Staab and Kennedy as applied to claim 5 above, and further in view of Cutler et al. (5944206) (Cutler) and Fredricks et al. (6129653) (Fredricks).

The combination discloses the invention except for showing that the support material is melt-compatible with the plastic material forming the tube head. Cutler teaches a bottle made

from low density polyethylene (LDPE). Fredricks teaches and discusses a comparison between the melt temperature of low density polyethylene (LDPE) at 105 degrees C and a higher melt temperature of high density polyethylene (HDPE) at 130 degrees C.

Melt-compatibility is not thoroughly explained in paragraph [0026] of applicant's specification. However, applicant mentions that high density polyethylene (HDPE) or a polypropylene is used for the support material. It is believed that HDPE with its higher melt temperature makes HDPE melt-compatible when welded or molded with lower melting point plastics such as LDPE because the support will not melt, deform or become degraded during a molding process where molten LDPE flows at a temperature higher than 105 degrees C but lower than 130 degree C which doesn't adversely affect the HDPE of the support. The skilled artisan, a chemical engineer or a mechanical engineer with a background in flow mechanics of plastic materials, would have known and understood this important relation of plastic materials with different melt points and how to use a lower melting point material to enclose a higher melting point (melt-compatible) material when molding with the lower melting point material.

It would have been obvious to modify the combination by using a HDPE plastic support material with a LDPE plastic material to form the cap and tube head in order to allow fast, reliable and easy attachment of the support with circuit and antenna to the formed tube head and cap when forming the tube head and cap. The HDPE plastic support material is a melt-compatible with the plastic material forming the tube head and cap.

Applicant's arguments with respect to claims 1, 4-7, 15 and 17 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., tube head produced independently from skirt and a cap which detaches in the open position) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). There is no claim limitation that states that the tube head is produced independently from the skirt. Claim 1 requires a shoulder connecting the edge to a flexible skirt of a flexible tube. A blow molded bottle wherein the shoulder and the skirt are connected would fulfill this requirement. Similarly, the cap of the invention is not required to be non-removable. Carr's cap is pivotable because the insert 2, 3 rotates with respect to the envelope 9 and skirt 10.

Applicant further argues that the intended use of Carr is different than the present invention. Applicant states that Carr is only used for conducting product promotion and disseminating product information. This doesn't state what is different than the intended use which applicant has stated in the claim: "intended to exchange information about the tube and/or its contents with a read or read/write device outside of the tube without electrical contact." The antenna would remotely enable communication with a device outside the tube without electrical contact. The fact that Carr is for disseminating product information would provide the necessary ability to exchange information about the tube and/or its contents.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Stephen J. Castellano/ whose telephone number is 571-272-4535. The examiner can normally be reached on increased flexibility plan (IFP).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony D. Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen J. Castellano/  
Primary Examiner  
Art Unit 3781

sjc